

Amendments to the Drawings

The drawings have been amended as follows and reflect the originally filed specification by mirroring the new amendments made to the specification (those amendments which correct some initial typographical errors).

On figures 3, 4, 5a, 5b, 6, 7, and 8a, as indicated on the replacement drawing sheets, reference numerals 11, 12, and 13 have been replaced with reference numerals 18, 19, and 29 respectively to correct the original double usage of reference numerals 11, 12, and 13.

On figures 2, 5a, 5b, 6, 7, and 8a, reference numeral 4 now points with an arrow to the drawing instead of with a leader line, the arrow indicating the overall membrane or panel, which consists of specific portions: foam 18 and layers of strength enhancing fabric 19 and 29.

Figure 2: now removed is the one instance of reference numeral 13 that originally had mistakenly double-referenced to that which is referenced now by proper reference numeral 3 (and arrow), the broad face 3 of the shell 2.

Discussion:

In Paragraph 5, the examiner had stated that Claims 8 and 19-23 are rejected as being unpatentable over Hsieh (5065847) in view of Hofferbert (3335827). The examiner states that Hsieh teaches a luggage with upstanding walls and frame wherein the frame has a series of thin upstanding walls and a thickened edge portion. The examiner states that it would have been obvious to combine the Hsieh teachings with an autogenous bond taught by Hofferbert.

It is the Applicants' position that the claimed invention is patentable over any obvious combination of teachings from the Hsieh and Hofferbert patents. The claimed invention comprises an injection molded frame. The structure of the frame is unique in that it comprises smooth, rounded edges and corners that are not taught by the Hsieh and Hofferbert patents. In fact, Hsieh and Hofferbert teach away from an injection molded frame. Hsieh teaches briefcase frames made of laminates that include an inner layer of soft lining and an outer layer of a fabric cloth. Hofferbert speaks of forming a luggage case having a primarily rectangular-shaped centerpiece of rigid construction (a foundation) of plywood, plastic or metal, covered by a covering. Hofferbert discusses treatment of the covering (dipping, squeezing fleece layers between rolls before drying) and processing the layers in a complex, multi-step process including placing plural layers in a mold as a stack and applying heat and pressure to effect an attachment of layers, but does not show how such a process could be done while simultaneously manufacturing the frame. Furthermore, Hofferbert teaches rivets as a means of securing edge portions of a side wall to the metal frame (figure 1). As a result, only rudimentary and ordinary shapes of luggage and crude means of attachment between the luggage case components could be manufactured from the teachings of Hofferbert. There is nothing taught in the Hofferbert patent that could be combined with anything disclosed within the Hsieh patent to effect the current claimed invention.

In response to the examiner's mention of claim 23's foam and textile layer, Applicants feel that by clarifying the independent claims to reflect the structural differences in the claimed invention resulting from the novel and unique method of manufacturing an injection molded frame while

simultaneously attaching the frame to a sheet of material of different construction that the independent claims will be made allowable as well.

The claims have been amended to reflect the unique nature of the panel: a streamlined, wrinkle-free surface in conjunction with a frame that can have rounded outer surfaces (edges and corners) as well as a hidden, smooth, seamless juncture between the two mating materials. There is nothing in the Hsieh, Hofferbert, or other listed references that teaches the main thrust of the claimed invention: a case comprising an injection molded frame that includes a bulge along the length of its interior edge (that serves to thicken the frame's peripheral edge that is in direct contact with the fabric panel) and a fabric panel that has at least one invagination. The invagination serves to ensure a sleek, wrinkle-free exterior surface of the fabric panel. The juncture or bond between the two materials results from a process in which an injected molded shell is manufactured while simultaneously being attached to a fabric panel – hence the use of the term “autogenous bond” (a self-generating bond).

Referring to the specification, the invagination 32 (continuous groove) extends around the inside of the frame immediately adjacent to the edge portion of the panel. This invagination not only provides an immediate aesthetic advantage but also permits the relative differential shrinkage between the hot injection molded peripheral frame and the relatively dimensionally stable foam panel to accommodate one another in the cooling process. This is illustrated in FIG. 5b. Once the injection molded frame has cooled substantially, it tends to shrink significantly in the peripheral dimension. The invagination accommodates this shrinkage by creating a relatively weakened portion within regard to resisting the compressive forces applied by the inwardly shrinking frame. The invagination collapses like the bellows of an accordion and permits the rest of the foam panel to remain relatively undistorted by the frame's thermal shrinkage. The foam panel would thus require no or very little post forming (that is, placing the panel and frame in a huge stabilizing mold to reform it into the desired concave shape).

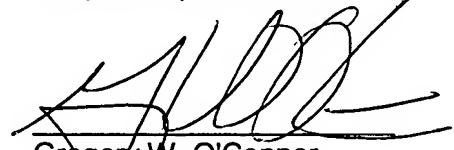
The claim amendments reflect a smooth, taut surface of the panel making the panel visually and therefore commercially superior to any of the luggage pieces shown in the cited references. This smooth appearance is evidenced in the drawings and the specification.

Claims 28 and 29 have been amended to reflect the originally-filed specification that teaches an enlarged edge portion 30 or cavity of the injection molded frame. The flow of the molten thermoplastic in this thickened section resists any movement of the panel away from the adjacent wall of the injection mold resulting in a secure bond between the panel and the frame.

The frame of the claimed invention can comprise shapes and cross sections allowable only by injection molding methods. Lines 12 through 15 of paragraph [0017] of the specification state, "The frame 5 and mating frame 5' include overlapping edges which form a clamshell type closure (FIG. 3) using known tongue and groove complementary edge shapes."

For the above reasons, we therefore respectfully request the issuance of a Notice of Allowance.

Respectfully submitted,



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